

Report: Iowa last in bioterrorism preparedness; needs to be on alert

The state ties for last in the U.S., but one official questions some of the findings.

By TONY LEYS
REGISTER STAFF WRITER

Iowa has fallen behind most other states in preparing for deadly germs spread by terrorists or nature, a national report charged Tuesday.

The report, by the Trust for America's Health, said Iowa tied for last place with Alabama, Alaska and New Hampshire. Among the group's criticisms: that Iowa lacks sufficient labs to test for viruses and bacteria; that it lacks planning and equipment to deal with sudden surges of sick people; and that it is unprepared to distribute vaccines in an emergency.

Last year, the same group rated Iowa in the middle of the pack. State health leaders questioned the way some of the areas were judged this year, but they acknowledged room to improve in others.

"It is certainly not a picture of Iowa's progress," said Mary Jones, who oversees bioterrorism planning for the Iowa Department of Public Health.

Authorities have been scrambling to increase public-health defenses since 2001, when the possibility of germ warfare loomed in the wake of the Sept. 11 terrorist attacks. The issue has grown more crucial as scientists worry that avian flu or another highly infectious disease could stretch America's health care system.

"It is finally being recognized how critical this is. Investments are being made, but miracles don't happen overnight," said Shelley Hearne, executive director of the Trust for America's Health. "There needs to be a sustained, committed game plan for getting the job done in Iowa."

Hearne, whose group is based in Washington, D.C., disagrees with people who say public-health defenses are less important in rural areas because terrorists usually hit big cities. Every major epidemic in history - including AIDS and the 1918 flu - began in animals, she said. Iowa "could be the front line," she said.

Hearne said Iowa has improved its defenses, but not as fast as other states have.

One of the report's main knocks against Iowa is that the state has insufficient labs to test and analyze dangerous germs. Thirty-seven states have built enough of those facilities, the report says.

Dr. Mary Gilchrist, director of the University of Iowa Hygienic Laboratory, agreed with the criticism. Her main facility, near Iowa City, was built in 1917. It includes one lab room that meets stringent air-filtering standards for handling germs such as pandemic-flu and West Nile viruses. Another such room will open soon at the new state lab building in Ankeny, she said. But the addition still will leave Iowa short of what it would need in a crisis. "North Dakota has six of these labs," she said, "and in a month, Iowa will have two."

Gilchrist's agency has proposed building a large new facility near Iowa City, at a cost approaching \$40 million. The federal government has provided money for the design, but it would be up to state and federal lawmakers to pay for construction.

Jones, the health department official who oversees bioterrorism planning, questioned some of the report's findings.

For instance, she said, the only reason Iowa hasn't received a passing grade on preparedness to distribute vaccines is that it relied on county health departments instead of state employees to inspect mass-inoculation sites. Also, she said, Iowa was given a failing grade for not having federally financed concentrations of antidotes for chemical poisoning. In fact, she said, the state

decided it would be better to distribute such antidotes to ambulance crews and others who would be the first to reach the scene of a poisoning.

Another criticism was that Iowa lacks an Internet-based disease-reporting system. Jones said the state is setting up such a system, which should be online by the end of next year.

Iowa has been receiving about \$15 million a year in federal grants to improve such preparedness, and Jones said the efforts will fall off track if the money is cut. "This is not a quick-fix deal," she said.

The Iowa Hospital Association took issue with the way the report measured hospitals' preparedness. "Depending on the question, we could look really, really good, or really, really bad," said Art Spies, the association's senior vice president.

The hospital-preparedness rankings came from a survey of infection-control professionals. Spies said they didn't take into account the reality faced by small-town facilities. For example, he said, rural hospitals often have just one ventilator. They routinely send patients with critical breathing problems to bigger hospitals, which are set up to handle the extra load. Yet the small hospitals were given failing grades if they didn't have 10 ventilators per facility.

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2005

EXECUTIVE SUMMARY

INTRODUCTION

This is the third year that Trust for America's Health (TFAH) has issued a study of the nation's public health emergency response capabilities.

The public health system is an integral part of the nation's disaster response efforts, charged with preventing and reducing disease and injury. During catastrophes, ranging from a hurricane to a major disease outbreak to a bioterrorism attack, public health and health care professionals act as first responders, investigators, strategists, and medical care providers. They must diagnose and contain the spread of disease and treat individuals who were injured or may have been exposed to infectious or harmful materials.

After September 11, the subsequent anthrax attacks, and a series of assessments from expert groups including the Institute of Medicine (IOM), Government Accountability Office (GAO), and the Centers for Disease Control and Prevention (CDC), the U.S. Congress recognized that America's public health system was fundamentally unprepared to respond to major modern

threats.¹ It passed the Public Health Security and Bioterrorism Act of 2002 to help bolster readiness at the federal, state, and local levels of government. Experts have widely recognized that the nation's public health system had been chronically under-funded for the past several decades and the "infrastructure had greatly deteriorated," and that it would require a long-term, sustained commitment

to yield the major improvements required to protect Americans from the range of health threats the country faces in the 21st century.²

Four years after September 11, 2001, this report examines areas of progress in the country's ability to respond to public health emergencies, and the vulnerabilities that remain. While considerable progress has been achieved in improving America's health emergency preparedness, the nation is still not adequately prepared for the range of serious threats we face. To achieve an appropriate level of preparedness, efforts must be rapidly enhanced and accelerated, requiring improved policies and funding at all levels of government.

The report is intended to serve as a tool to help the nation move toward an improved, strategic "all-hazards" system for protecting the public's health, capable of responding effectively to health threats posed by diseases, disasters, and bioterrorism. TFAH also presents this report in an effort to provide greater accountability and transparency. The goal of this project is to help inform the American people about what they should expect from the publicly funded programs that are intended to protect their health and safety, and what gaps leave the country at risk.

This year, Hurricane Katrina was a graphic demonstration of many of the challenges and complications that arise during disasters, and it brought greater awareness of the many continued vulnerabilities in the nation's emergency response capabilities.

Also in 2005, the fear of a pandemic flu outbreak has escalated in the United States and around the world. The emergence of a new, lethal strain of the flu virus, against which people have no immunity, has health experts on high alert. TFAH estimates that a mid-severity pandemic outbreak could cause over half a million deaths and two million hospitalizations in the United States alone and could also disrupt the global economy.³ The federal government released a long-delayed pandemic preparedness plan, which called for increased funding and modernized vaccine production capacity and detailed many other important public health response strategies, most of which will require implementation at the state and local level. However, U.S. pandemic planning is still lagging in many crucial areas, particularly the preparations at the state and local levels, which would be at the front lines in caring for the public during an outbreak.

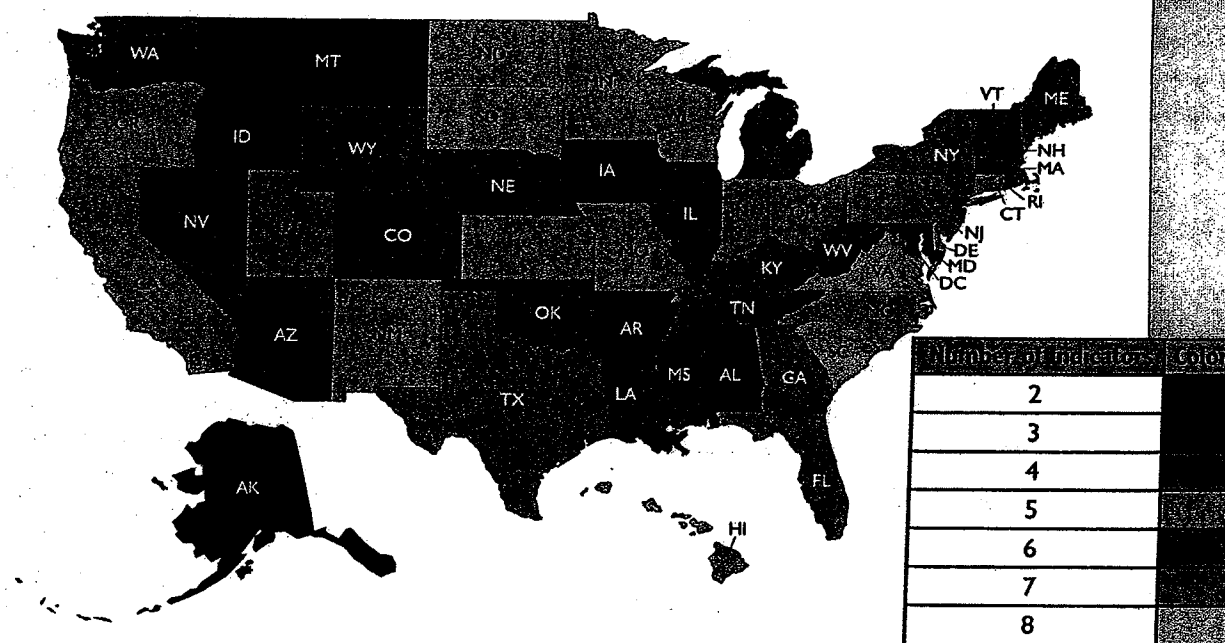
READY OR NOT? 2005 KEY FINDINGS: WE'RE STILL NOT READY

State Preparedness

Each state received a score based on 10 key indicators to assess its health emergency preparedness capabilities. The indicators were developed with input from an advisory committee of experts. Taken collectively, these indicators offer a composite snapshot of preparedness, including strengths and vulnerabilities. States received one point for achieving an indicator or zero points if they did not achieve the indicator.

Zero was the lowest possible overall score and 10 the highest.

Over half of states received a score of 5 or less of 10 possible indicators. Nearly 85 percent of states received a score of 6 or less. Delaware, South Carolina and Virginia scored the highest, achieving eight indicators. Alabama, Alaska, Iowa and New Hampshire scored the lowest, achieving only two indicators.



SCORES BY STATE

8	7	6	5	4	3	2
Delaware South Carolina Virginia	Florida Georgia New Jersey New York Texas	Arizona Colorado Illinois Kentucky Louisiana Massachusetts Michigan Nebraska Nevada Oklahoma Rhode Island Tennessee Washington	California Connecticut Hawaii Indiana Kansas Minnesota Missouri New Mexico North Carolina North Dakota Ohio Oregon Pennsylvania South Dakota Utah Wisconsin	D.C. Maine Mississippi Vermont West Virginia Wyoming	Arkansas Idaho Maryland Montana	Alabama Alaska Iowa New Hampshire

Indicators 1-5 measure the capabilities of state and local health departments, and reflect states' use of funds received through CDC bioterrorism and public health grants. The data for these indicators are from a variety of public sources, CDC reports, a survey conducted by the Association of Public Health Laboratories (APHL), public announcements from states, and interviews with government officials.

1. Only seven states and two cities have achieved "green" status for the **Strategic National Stockpile**, which means being recognized by the U.S. Centers for Disease Control and Prevention as adequately prepared to administer and distribute vaccines and antidotes in the event an emergency.
2. Over one-quarter of states do not have sufficient **bioterrorism laboratory response capabilities**.
3. Nearly 20 percent of states report that they **do not have adequate numbers of lab scientists to manage tests for anthrax or the plague** if there were to be a suspected outbreak.
4. Only 10 state public health labs have adequate **chemical terrorism response capabilities**. Only 19 states have **CHEMPACK** repositories of nerve agent antidotes.
5. Nearly half of states do not use national standards to **track disease outbreak information**.

Indicators 6-10 measure the capabilities of hospitals and other healthcare facilities and reflect states' use of funds received through the HRSA hospital preparedness grants. The data for the indi-

cators are from a survey conducted by TFAH and the Association for Professionals in Infection Control and Epidemiology (APIC) of 1,878 APIC members in June 2005. APIC members are experts in infection prevention and serve a "watchdog" role for infectious disease issues in hospitals. The survey questions were developed by members of the APIC Emergency Preparedness Committee Advisory Board and TFAH.

6. Hospitals in nearly one-third of states and D.C. are not sufficiently prepared, through planning or coordination with local health agencies, **to care for a surge of extra patients** by using non-health facilities, such as community centers, sports arenas, or hotels.
7. Hospitals in only two states have sufficient plans, incentives, or provisions to **encourage healthcare workers to continue to come to work** during a major infectious disease outbreak.
8. Hospitals in nearly one-third of states lack sufficient capabilities to **consistently and rapidly consult with infection control experts** about possible or suspected disease outbreaks.
9. Hospitals in nearly one-third of states have not sufficiently planned for **prioritizing distribution of vaccines or antiviral medications to hospital workers**.
10. Hospitals in over 40 percent of states **do not have sufficient backup supplies of medical equipment** to meet surge capacity needs during a pandemic flu or other major infectious disease outbreak.

WHY STUDY STATES' PREPAREDNESS?

Each of the 50 states has primary legal jurisdiction and responsibility for the health of its citizens under the U.S. Constitution. The states all differ in how they structure and deliver public health services. In some states, the public health system is centralized, and the state has direct control and supervision over local health agencies. In other states, local public agencies developed separately from the state and are run by counties, cities, or townships and usually report to one or more elected officials.

Regardless of where Americans live, however, there are fundamental health protections that the public should expect. Emergency response to disasters, such as a hurricane or earthquake, and the containment of infectious diseases with the potential for mass contagion are two extremes and serious examples of such protections.

Note: The "Ready or Not?" reports in 2003 and 2004 also contained 10 indicators; however, the indicators are adapted annually to reflect changing expectations for preparedness each year. Expectations for preparedness in 2005 should be greater than in previous years.

STATE PREPAREDNESS SCORES

States	1 Achieved green status for Strategic National Stockpile Delivery	2 Has sufficient BSL-3 labs	3 Has enough lab scientists to test for anthrax or plague	4 Has sufficient capabilities to respond to a chemical terrorism threat	5 Has a disease tracking system to collect and monitor data electronically via the Internet	6 Has plan or is part of state/local planning effort to care for patients at non- healthcare facilities	7 Has plans, incentives, or provisions to ensure continuity of care in the event of a major outbreak	8 Has an infection control professional available within 15 minutes on a 24 hour/ 7 day basis	9 Has worked with state or local health department to prioritize hospital workers' receipt of vaccine or antivirals	10 Has sufficient medical equipment and supplies for 10 additional patients requiring ventilation	2005 Total Score
Alabama					✓			✓			2
Alaska		✓	✓								2
Arizona		✓	✓		✓	✓		✓	✓		6
Arkansas		✓						✓	✓		3
California		✓	✓	✓				✓		✓	5
Colorado		✓	✓		✓	✓			✓	✓	6
Connecticut		✓	✓					✓	✓		5
Delaware	✓	✓	✓		✓	✓		✓	✓	✓	8
District of Columbia			✓					✓	✓	✓	4
Florida	✓	✓	✓	✓	✓			✓		✓	7
Georgia		✓	✓		✓	✓		✓	✓	✓	7
Hawaii			✓			✓		✓	✓	✓	5
Idaho			✓		✓	✓					3
Illinois	✓				✓	✓		✓	✓	✓	6
Indiana		✓	✓			✓		✓	✓		5
Iowa			✓			✓					2
Kansas		✓	✓		✓	✓			✓		5
Kentucky		✓	✓		✓	✓		✓	✓		6
Louisiana	✓		✓		✓	✓		✓	✓		6
Maine		✓	✓			✓		✓			4
Maryland								✓	✓	✓	3
Massachusetts		✓	✓	✓				✓	✓	✓	6
Michigan			✓	✓	✓	✓		✓		✓	6
Minnesota		✓	✓	✓		✓			✓		5
Mississippi		✓	✓			✓				✓	4
Missouri	✓	✓	✓					✓		✓	5
Montana		✓	✓			✓					3
Nebraska			✓		✓	✓		✓	✓	✓	6
Nevada		✓			✓	✓		✓	✓	✓	6
New Hampshire		✓							✓		2
New Jersey		✓	✓		✓	✓		✓	✓	✓	7
New Mexico		✓	✓	✓				✓	✓		5
New York		✓	✓	✓	✓			✓	✓	✓	7
North Carolina		✓	✓			✓		✓		✓	5
North Dakota		✓			✓	✓			✓	✓	5
Ohio			✓		✓			✓	✓	✓	5
Oklahoma		✓	✓		✓	✓		✓	✓	✓	6
Oregon			✓		✓	✓			✓	✓	5
Pennsylvania		✓	✓		✓			✓		✓	5
Rhode Island			✓			✓	✓	✓	✓	✓	6
South Carolina		✓	✓	✓	✓	✓		✓	✓	✓	8
South Dakota		✓	✓			✓	✓		✓		5
Tennessee		✓	✓		✓	✓		✓	✓	✓	6
Texas	✓	✓	✓		✓	✓		✓	✓	✓	7
Utah			✓			✓		✓	✓	✓	5
Vermont		✓	✓		✓	✓					4
Virginia	✓	✓	✓	✓	✓	✓		✓		✓	8
Washington		✓	✓			✓		✓	✓	✓	6
West Virginia		✓			✓	✓			✓		4
Wisconsin		✓	✓	✓		✓		✓	✓		5
Wyoming		✓	✓			✓		✓			4
Total	7	37	41 + D.C.	10	27	35	2	35 + D.C.	34 + D.C.	29 + D.C.	

Federal Preparedness

Four years after September 11, 2001, there is still little consensus about priorities and objectives for bioterrorism preparedness programs. Additionally, no formal, validated, or publicly available national performance measures for the use and tracking of federal bioterrorism funds are in place. There is also a lack of accountability on which to measure federal bioterrorism preparedness efforts. In order to help assess these activities and pro-

grams, TFAH conducted a survey of 20 experts in public health and bioterrorism preparedness policies and programs.

While the experts clearly acknowledged that significant progress has been made in federal efforts since September 11, 2005, overall, the experts give the federal public health and bioterrorism preparedness performance a grade of D+.

Federal Public Health and Bioterrorism Preparedness Survey Grades	
1. Management of Federal Funds and Programs (HHS Overall)	C-
2. Coordination Among Agencies	D
3. Measurable Goals and Directions	D
4. Leadership	D+
5. Strategic National Stockpile	C+
6. Cities Readiness Initiative	C-
7. BioWatch	D
8. National Flu Planning	C-
9. Bio Surveillance	C-
10. Influenza Vaccine Shortage of 2004	C
11. Smallpox Vaccination Initiative	D-
12. Hurricane Katrina Public Health	D
FINAL GRADE	D+

The survey was conducted in September-October 2005. The grades reflect an average of the respondents' answers, with A's counted as 4 points, B's counted as 3 points, C's counted as 2 points, D's counted as 1 point, and F's counted as zero. The final scores in each category and for the cumulative score incorporated "pluses" and "minuses" to help show gradations in the scores. The final grade was based on an average of the other category grades. The scores and comments were collected and are reported as an aggregate to maintain individual anonymity and help encourage candor in the responses.

TFAH "READY OR NOT?" 2005

RECOMMENDATIONS: LET'S GET REAL

TFAH's three "Ready or Not?" reports have shown significant improvements in the nation's emergency public health preparedness, but also revealed that we are still only modestly better prepared than we were prior to September 11, 2001.

Hurricane Katrina provided a sharp indictment of America's emergency response capabilities as the gaps between "plans" and "realities" became strikingly evident. Parts of the public health system did not work, and while many did work as intended, those functions were often too limited and divorced from other response activities to match the real needs in a timely way.

The Let's Get Real Agenda:

- **Leadership:** TFAH calls for increased leadership and oversight of U.S. bioterrorism and public health preparedness. HHS needs to integrate top-level management of multiple bioterrorism and public health preparedness programs. There needs to be a single, accountable official below the Secretary of HHS with budget and policy authority for programs.
- **Accountability:** It is inexcusable, four years after September 11, 2001, that there are no defined, standardized performance measures for bioterrorism preparedness from CDC or regular reports of progress and vulnerabilities to the American people and Congress. Steps must be taken immediately to establish useful performance standards, and increased measures must be taken to ensure state and local planning efforts match preparedness needs. The HRSA program must be reviewed to ensure greater achievable, measurable preparedness improvement outcomes.
- **Working With The Public:** Anticipating the "real world" complications that will arise during an emergency event, planning must acknowledge that the media, general public, business community, and other audiences will not always conform to rigid planning procedures. Heightened effort must also be taken to include the needs of vulnerable populations in emergency plans.
- **Improving Basic Response Capabilities:** From surge capacity preparations to frequent tests and drills, planning efforts must better incorporate the best advice of health experts and emphasize operational capacities. The basic technology and tools of public health must be modernized to adequately protect the American people.
- **Funding:** The current level of funding for public health does not match the modernization and basic improvements needed to adequately protect the public's health. A major increase in investments must be made to reach basic levels of preparedness for emergencies. Funding must be considered in conjunction with the range of other issues during the debates about reauthorizing the public health and bioterrorism preparedness act in the coming year. Money is clearly an essential part of the equation, but there must also be heightened efforts to ensure the funds allocated are being used efficiently and effectively.

The United States must inject more realism into public health emergency planning.

The country has an important opportunity to address these gaps in the upcoming year, particularly when Congress considers the reauthorization of the Public Health Security and Bioterrorism Preparedness Response Act of 2002 (Public Law 107-188) and BioShield II legislation. TFAH calls for accelerating bioterrorism and public health preparedness efforts, taking an "all-hazards" approach to help protect against a range of possible threats, including a major outbreak of a new, lethal strain of the flu, a bioterrorism attack, and a natural disaster.

BASIC PREPAREDNESS FUNDING REQUIREMENTS

Areas of Preparedness	Funds Required
Public health and bioterrorism preparedness grants to states	\$950 million annually
Bolstering the public health workforce through the Public Health Workforce Preparedness Act -- with scholarship and loan repayments	\$35 million annually for scholarship program \$195 million annually for loan repayment program
Bolstering stockpile distribution capabilities	\$70 million annually
Modernizing laboratory capabilities	\$100 million annually \$100 million supplemental for one year new equipment needs
Tracking disease threats, including a "needs and new technology assessment" to result in a modernized, integrated, and standardized system (including integrating with e-medical record initiatives)	\$100 million
Medical/Hospital surge capacity grants to states	\$1 billion annually <i>The new funds should be scaled over the next three years to allow states to adapt for planning and use -- \$650 million in FY 2006; \$850 in FY 2007; and \$1 billion in FY 2008.</i>
Additional federal initiatives, including Cities Readiness Initiative, BioSense, BioShield stockpile contents, E-Medical Records, Integrated Emergency Communications Systems, and pandemic flu planning must be considered in addition to the basic components above.	

Endnotes

1 Public Health Infrastructure – A Status Report (Atlanta, Georgia: Centers for Disease Control and Prevention, 2001); The Future of the Public's Health in the 21st Century (Washington, D.C.: National Academies Press for the Institute of Medicine, 2003) and HHS Bioterrorism Preparedness Programs: States Reported Progress But Fell Short of Program Goals in 2002 (Washington, D.C.: Government Accountability Office, 10 February 2004).

2 Frist, Bill, M.D. "Public Health & National Security: The Federal Role," Health Affairs, 21:6 (November/December 2002): 119.

3 "A Killer Flu? Scientific Experts Estimate that 'Inevitable' Major Epidemic of New Influenza Strain Could Result in Millions of Deaths if Preventable Actions Are Not Taken," Trust for America's Health (June 2005).
<<http://healthyamericans.org/reports/flu/>> 19 October 2005.

4 The Future of the Public's Health in the 21st Century (Washington D.C.: National Academies Press for the Institute of Medicine, 2003): 111.

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